

AMENDMENTS TO THE CLAIMS

Listing of the Amended Claims

1. (Canceled)

2. (Amended) Device according to Claim 44 12,

characterised in that when the air conditioning unit (14) is functioning the first close off mechanism assumes its open position and the second close off mechanism assumes its closed position.

3. (Amended) Device according to claim 44 12,

characterised in that in the event of a failure of the air conditioning unit (14) the flow control valve (16) and the first close off mechanism assume their closed positions and the second close off mechanism assumes its open position.

4. (Amended) Device according to claim 44 12,

characterised in that a plurality of first hot air supply lines (12) leading to an air conditioning unit (14) is provided wherein in each first hot air supply line (12) is disposed upstream from the air conditioning unit (14) a flow control valve (16) and a second hot air supply line (18) branching off from the respective first hot air supply line (12) between the flow control valve (16) and the air conditioning unit (14) bypassing the associated air conditioning unit (14), wherein from each first hot air supply line (12) upstream from the flow control valve (16) a third hot air supply line (20) branches off

which third hot air supply line (20) connects the first hot air supply line (12) to the associated second hot air supply line (18) and wherein in each second hot air supply line (18) is disposed a first close off mechanism upstream from the junction with the third hot air supply line (20) which first close off mechanism in its closed position prevents a flow from the second hot air supply line (18) into the associated first hot air supply line (12), and in each third hot air supply line (20) is disposed a second close off mechanism upstream from the junction with the associated second hot air supply line (18).

5. (Amended) Device according to claim 44 12, characterized in that ~~each~~ the first close off mechanism is a non-return valve (24).
6. (Amended) Device according to claim 44 12, characterised in that ~~each~~ the second close off mechanism is a stop valve (22).
7. (Amended) Device according to Claim 6, characterised in that ~~each~~ the stop valve (22) is automatically actuated.
8. (Amended) Device according to Claim 7,

characterised in that ~~each~~ the stop valve (22) is connected to ~~a~~the control means~~device~~, in particular to the control means~~device~~ of the associated air conditioning unit (14).

9. (Amended) ~~Process-Method~~ for heating an aircraft cabin, comprising:

guiding wherein a portion of a controlled flow of hot air from a hot air source is guided through an air conditioning unit and wherein some of the a-portion is guided past the air conditioning unit into the aircraft cabin, characterised in that in the event of a failure of the air conditioning unit the hot air is mixed with cold ambient air and is guided to the aircraft cabin by bypassing the a flow control valve and the air conditioning unit; and

isolating the air conditioning unit from the hot air source.

10. (Amended) ~~Process-Method~~ according to Claim 9,

characterised in that in the event of a failure of the air conditioning unit the air fed to the aircraft cabin is set to a desired temperature by a control means~~device~~ that is also employed for normal operation.

11. (Canceled)

12. (New) Device (10) for heating an aircraft cabin, comprising:

a first hot air supply line (12) leading to an air conditioning unit (14) for supplying hot air thereto;

a flow control valve (16) disposed in the first hot air supply line (12) upstream from the air conditioning unit (14);

a second hot air supply line (18) branching off from the first hot air supply line (12) between the flow control valve (16) and the air conditioning unit (14), bypassing the air conditioning unit (14) and connecting the first hot air supply line (12) to a mixing zone (26), the mixing zone (26) also connected to a downstream end of the air conditioning unit (14) so as to enable mixing of the hot air supplied via the first and second air supply lines (12, 18) with cool air flowing out of the air conditioning unit (14), the mixing zone (26) in fluid communication with the aircraft cabin;

a control device (28) operatively connected to the mixing zone (26) and adapted to adjust the mixing of the hot air received from the first and second hot air supply lines (12, 18) and the cool air flowing out of the air conditioning unit (14) so as to achieve a controlled cabin air temperature, during a normal mode of operation;

a third hot air supply line (20) branching off from the first hot air supply line (12) upstream from the flow control valve (16) and connecting to the second hot air supply line (18) upstream from the mixing zone (26);

a first close off mechanism (24) disposed in the second hot air supply line (18) upstream from the third hot air supply line (20), the first close off mechanism (24) operable to, when in a closed position, prevent a flow from the second hot air supply line (18) back to the first hot air supply line (12);

a second close off mechanism (22) disposed in the third hot air supply line (20) upstream from the second hot air supply line (18) and operable to close off the third hot air supply line (20) during the normal mode of operation and to open the third hot air supply line (20) if the air conditioning unit (14) fails; and

an ambient air inlet connected to the mixing zone (26) and adapted to feed cold ambient air to the mixing zone (26) for mixing with the hot air supplied via the third hot air supply line (20), when the air conditioning unit (14) fails, the control device (28) also adapted to adjust the mixing of the hot air supplied to the mixing zone (26) via the third hot air supply line (20) and the cold ambient air supplied by the ambient air inlet when the air conditioning unit (14) fails, so as to achieve the controlled air cabin temperature, whereby the control device (28) controls the cabin air temperature during the normal mode of operation and when the air conditioning unit (14) fails.

13. (New) Method for achieving a required temperature in an aircraft cabin, comprising:

guiding a controlled flow of hot air from a hot air source via a first hot air supply line (12) and then through an air conditioning unit (14);

directing a portion of the controlled flow of hot air from the hot air source via a second hot air supply line (18), the second hot air supply line branching from the first hot air supply line (12) downstream of a flow control valve (16) but upstream from the air conditioning unit (14), said portion being directed to a mixing zone (26) for mixing hot air supplied via the first and second air supply lines (12, 18) with cool air flowing out of a downstream end of the air conditioning unit (14);

adjusting the mixing of the hot air supplied via the first and second hot air supply lines (12, 18) and the cool air flowing out of the air conditioning unit (14), thereby to achieve the required cabin air temperature during a normal mode of operation;

in the event of a failure of the air conditioning unit (14), supplying hot air to the mixing zone (26) via a third hot air supply line (20) that branches off the first hot air supply line (12) upstream of the flow control valve (16), and connects to the second hot air supply line (18) upstream of the mixing zone (26) thereby to bypass the air conditioning unit (14) and the flow control valve (16) so that the hot air from the hot air source received via the third hot air supply line and the second hot air supply line (20, 18) flows to the mixing zone (26);

supplying cold ambient air to the mixing zone (26) in the event of a failure of the air conditioning unit (14); and

adjusting the mixing of the hot air supplied via the third hot air supply line (20) with the cold ambient air, whereby the third hot air supply line (20) serves as an alternate route for conveying the hot air to the mixing zone in the event of a failure of the air conditioning unit, thereby to achieve the required cabin air temperature.

14. (New) A method of achieving a desired temperature in an aircraft cabin comprising:

a) supplying to the aircraft cabin, during a normal mode of operation, a first mixture of hot air from a hot air source and cooled air received from an air conditioning unit (14);

b) supplying to the aircraft cabin, in the event of a failure of the air conditioning unit (14) a second mixture of hot air from the hot air source and cold ambient air received from outside the aircraft;

c) isolating the air conditioning unit (14) from the hot air received from the hot air source in the event of a failure of the air conditioning unit (14), thereby to protect the air conditioning unit (14) from damage whereby the supplying of the first mixture and the supplying of the second mixture occurs from a mixing zone (26) standing in fluid communication with the aircraft cabin, and

d) controllably adjusting the first mixture and the second mixture, within the mixing zone (26), thereby to achieve the desired temperature during normal operation and in the event of a failure of the air conditioning unit (14).